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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,605	10/22/2003	Stephen D. Shew	PAT 2720-2	4817
26123 7590 10/17/2008 BORDEN LADNER GERVAIS LLP Anne Kinsman WORLD EXCHANGE PLAZA 100 QUEEN STREET SUITE 1100 OTTAWA, ON K1P 1J9 CANADA				
EXAMINER JONES, PRENELL P				
ART UNIT 2419		PAPER NUMBER		
NOTIFICATION DATE 10/17/2008		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/689,605

**Applicant(s)**

SHEW ET AL.

**Examiner**

PRENELL P. JONES

**Art Unit**

2419

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 and 37-54 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 35 and 37-49 is/are allowed.  
6) ☒ Claim(s) 1-34 and 50-54 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

***Response to Arguments***

1. Applicant's arguments with respect to claims 1-35 and 37-54 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant argues that the prior art of Ayandeh (US Pat 6,069,895) fail to teach or disclose the limitation, "a plurality of NEs and processing entity for implementing a routing function that provides routing resources to the client NEs which are not equipped with a routing function." Applicant also argues that Examiner's use of a plurality of line cards as being analogous to a plurality of NEs further fails to address the limitation of "a plurality of NEs."
3. After reviewing the cited art of Ayandeh, Examiner withdraws previous final rejection, however, Examiner has modified previous rejection utilizing the same prior art of Ayandeh, but the rejections utilizes "plurality of processing elements" as being analogous to claimed "plurality of network elements" as Ayandeh's "plurality of processing elements" are not equipped with a routing function until the routing table are copied into the processing elements (col. 2lines 9-67).
4. Applicant further argues that the combined prior art of Ayandeh (US Pat 6,069,895) and Wing (US PG PUB 20020109879) fail to disclose, "NEs being part of a bearer plane of the communications network not previously controlled by a control plane."
5. Examiner withdraws previous final rejection. Examiner has performed an additional search.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-12, 14-34 and 50-54 are rejected under 35 U.S.C. 102(b) as being anticipated by Ayandeh (US Pat 6,069,895).

Regarding claim 1 and 50, Ayandeh discloses a route server which distributes/copy routing information and routing resources to each of a plurality of processing element (which are analogous to claimed plurality of network elements, col. 2, line 25-36) associated with route server, wherein algorithms associated with the route server assist in the exchange of network control packets among processing element and a route server in order to maintain a link-state topology database that reflect the current network connections (true topology), and (Abstract, Fig. 2 & 5, col. 6, line 35-67). Copying the routing tables into the processing elements allow the processing elements to perform routing tasks (col. 2, line 9-67). In addition, routing algorithm along with topology database are used in configuring network topology (col. 1, line 26-67, col. 2, line 9-23). Ayandeh further discloses routing protocol advertising a summary of route information as associated with a peer group and link states (col. 4, line 14 thru col. 5, line 55).

Regarding claim 2, Ayandeh further discloses routing algorithm implementing a routing function to multiple nodes/line cards associated with a peer group in a multi-cast fashion (col. 3, line 1-30, col. 9, line 17-40, processing entity implement routing function by running a single instance of routing protocol).

Regarding claim 3, 4 and 51, Ayandeh further discloses that the routing protocol is a distributed routing protocol that include a selection from a group consisting of OSPF, IS-IS and PNNI (Abstract, col. 3, line 60 thru col. 4, line 30).

Regarding claim 5 and 52, Ayandeh further discloses routing protocol, such as OSPF wherein metrics and calculations for determining routing is performed (col. 4, line 14-43).

Regarding claim 6-10, Ayandeh further discloses routing protocol advertising a summary of route information as associated with a peer group and link states (col. 4, line 14 thru col. 5, line 55).

Regarding claim 11 and 53, Ayandeh further discloses that the server includes control connectivity and control processing, therefore, the server is part of a control plane (Fig. 1, col. 5, line 55 thru col. 6, line 35).

Regarding claims 12 and 54, Ayandeh further discloses that the server is in the control plane and separate from the bearer plane (col. 7, line 1-55).

Regarding claim 15, claim 15 includes the limitations of claim 1, but in the form of a computer readable storage medium that includes a program element on a server for execution of desired functions. So, claim 15 is rejected for the same reason that claim 1 is rejected, because it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to utilize executable computer programs as to carry out desired function of a computer device (server).

Regarding claim 16, Ayandeh further discloses routing algorithm implementing a routing function to multiple processing elements associated with a peer group in a multi-cast fashion (col. 3, line 1-30, col. 9, line 17-40, processing entity implement routing function by running a single instance of routing protocol).

Regarding claim 17 and 18, Ayandeh further discloses that the routing protocol is a distributed routing protocol that include a selection from a group consisting of OSPF, IS-IS and PNNI (Abstract, col. 3, line 60 thru col. 4, line 30).

Regarding claim 19, Ayandeh further discloses routing protocol, such as OSPF wherein metrics and calculations for determining routing is performed (col. 4, line 14-43).

Regarding claim 20-24, Ayandeh further discloses routing protocol advertising a summary of route information as associated with a peer group and link states (col. 4, line 14 thru col. 5, line 55).

Regarding claim 25, claim 25 includes the limitations of claim 1 and 14, but in the form of a method that includes performing steps for providing routing functions, claim 25 is rejected for the same reason that claim 1 is rejected, because it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to utilize method steps as to carry out desired function of a computer device (server).

Regarding claim 30-34, Ayandeh further discloses routing protocol advertising a summary of route information as associated with a peer group and link states (col. 4, line 14 thru col. 5, line 55).

Regarding claim 26, Ayandeh further discloses routing algorithm implementing a routing function to multiple nodes/line cards associated with a peer group in a multi-cast fashion (col. 3, line 1-30, col. 9, line 17-40, processing entity implement routing function by running a single instance of routing protocol).

Regarding claim 27 and 28, Ayandeh further discloses that the routing protocol is a distributed routing protocol that include a selection from a group consisting of OSPF, IS-IS and PNNI (Abstract, col. 3, line 60 thru col. 4, line 30).

Regarding claim 29, Ayandeh further discloses routing protocol, such as OSPF wherein metrics and calculations for determining routing is performed (col. 4, line 14-43).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ayandeh (US Pat 6,069,895) in view of Wing (US PGPUB 20020109879).

Regarding claim 13, s indicated above, Ayandeh discloses a distributed route server wherein routing tables are distributed/copied throughout the processing elements, and the controller and routing algorithm associated with the route server assist in the exchange of network control packets among processing element and a route server in order to maintain a link-state topology database that reflect the current network connections (true topology), and (Abstract, Fig. 2 & 5, col. 2, line 9-67). In addition, routing algorithm along with topology database are used in configuring network topology (col. 1, line 26-67, col. 2, line 9-23).

Ayandeh is silent on NEs selected from a group including a packet switch and SONET cross-connect.

In analogous art, Wing discloses utilizing network elements selected in the group of an ATM and SONET cross-connect/packet over SONET (paragraph 0079, 0182, 0285, 0290, 0330 and 0419).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement utilizing network elements selected in the group of an ATM and SONET cross-connect/packet over SONET as taught by Wing with the teachings of



Ayandeh for the purpose of manage and control switching capacity over a wider graphical architecture.

***Allowable Subject Matter***

11. Claims 35 and 37-49 are allowed over prior art.
12. The following is a statement of reasons for the indication of allowable subject matter:  
The prior art fail to teach or suggest with respect to claim 35, implementing on the server a single instance of a routing function for controlling routing functions for a plurality of NEs such that plurality of NEs can perform routing functions without upgrading the NEs to include routing functions themselves, claim 48, "NEs being part of a bearer plane of the communications network not previously controlled by a control plane."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones  
October 9, 2008

/Wing F. Chan/  
Supervisory Patent Examiner,  
Art Unit 2619  
10/09/08

